

PROCEEDINGS
OF THE
SANITARY CONFERENCE

OF
State Boards of Health

HELD AT
NEW ORLEANS, LA.,

JUNE 2D, 3D AND 4TH, 1884

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NEW ORLEANS
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THE QUARANTINE CONFERENCE

Held at New Orleans, La., June 2d, 3d and 4th, 1884.

MINUTES OF THE SESSIONS OF THE CONFERENCE.

The following circular-letter issued May 12th was received by the various States interested, and the invitation accepted. Tennessee was afterwards invited to send Representatives, and did so.

OFFICE BOARD OF HEALTH, }
STATE OF LOUISIANA, }
NEW ORLEANS, May 12, 1884. }

DEAR SIR—I beg to call your attention to the following resolution passed by the State Board of Health of Louisiana on the 8th day of May, 1884:

Resolved, That the President of the Board be requested to solicit a Conference of Representatives from the State Boards of Health of the States of Florida, Alabama, Mississippi, Texas and Louisiana, for the purpose of bringing said Boards into harmony, and if possible, to devise and recommend improvements in the systems of quarantine in use along the Gulf coast, such Conference to be held in the city of New Orleans on Monday, June 2, 1884.

It is earnestly hoped your honorable Board will take a favorable view of this matter and coöperate in the proposed Conference.

It is my belief that much good may be done by such Conference in establishing uniformity and precision of action among ourselves and confidence in the minds of the people of the interior. It is necessary that we should demonstrate to these that as guardians against the introduction of contagious or infectious diseases from abroad we are keenly alive to our duties.

The following subjects would probably engage the attention of the Conference:

The necessity for the prompt interchange between State Boards of Health of information on all subjects relating to the public health.

The possibility of the introduction of infectious or contagious diseases is the chief drawback to the prosperity of the Gulf ports, it is, therefore, the duty of State and municipal authorities to increase the resources and otherwise enlarge and strengthen the powers of Boards of Health of the several States bordering on the Gulf of Mexico.

Can an effective quarantine be enforced along the Gulf coast?

How to enforce quarantine so as to produce the least possible injury to commerce.

Non-intercourse—under what circumstances justified.

Period of quarantine detention.

The proper disposal of non-infected and infected vessels under quarantine. Treatment of vessels and cargoes with a view to disinfection.

The advisability of petitioning Congress to require consular agents of the United States residing at intertropical ports habitually or periodically infected with yellow fever, to cause all ships in such ports that are about to load for ports in the United States, to be thoroughly inspected and cleansed before receiving cargo, and a certificate furnished to that effect.

The utility and advisability of authorizing vessels trading between ports of the Gulf States and ports recognized as being within the yellow fever area or region, to carry, at their own expense, such sanitary inspectors as may be approved by Boards of Health in said States, such inspectors to be charged with the inspection and purification of vessels, prior to receiving cargoes, under consular direction, and to enforce proper sanitation on such vessels while in transit from a foreign port.

Importance of municipal sanitation.

Importance of instruction in the elements of hygiene in the public schools.

I mention these topics as they occur to my mind only as suggestive of the fact that subjects of the greatest importance will abundantly engage our attention.

The good which must result from the Conference proposed will be felt not only by ourselves and the citizens we represent, but also by the people of the interior, whose welfare is quite as much involved and who are as much interested in this matter as are the janitors to the gate-ways of the Gulf.

We promise you a cordial reception, feeling assured that a personal acquaintance will beget a generous sentiment of mutual esteem.

I remain, with highest regard, yours, very truly,

JOSEPH HOLT, M. D.,

President Board of Health, State of Louisiana,

In accordance with the invitation thus extended, the Conference assembled in the city of New Orleans, at Grunewald Hall, Monday, June 2d, at noon. There were also present representatives from the New Orleans Auxiliary Sanitary Association and other bodies of New Orleans.

The meeting was called to order by Dr. Joseph Holt, President of the Louisiana Board.

On motion of Dr. Salomon, Dr. Wirt Johnston, of Mississippi, was called to the chair as temporary chairman. He said :

Gentlemen—I suppose you are all aware of the objects of this meeting, as set forth in the circular issued by Dr. Holt, of the Louisiana State Board, which I will now read.

The circular letter above given was then read.

On motion of Dr. Holt, Dr. C. C. Fite, of Tennessee, was elected temporary Secretary. A recess was then taken and the States called in the following order, for the delegates to register their names with the Secretary :

Florida—Dr. W. F. Fordham, member Pensacola Board ; A. Avery, Esq., President Pensacola Board ; Dr. R. W. Hargis, member Pensacola Board ; Dr. W. E. Anderson, Millview Board.

Alabama—Dr. Jerome Cochrane, State Health Officer ; Dr. Geo. A. Ketchum, member State Board, President Mobile Board ; Dr. T. Sidney Scales, Health Officer, Mobile, and member State Board.

Mississippi—Dr. Wirt Johnston, Secretary State Board ; Dr. John Wright, Dr. D. L. Phares, Dr. E. P. Sale, Dr. J. W. Bennett, Dr. J. M. Taylor, Dr. C. A. Rice, members of State Board ; Dr. A. Parker Champlin, President Hancock County Board ; Dr. J. A. Mead, Secretary Hancock County Board ; Dr. J. J. Harry, President Harrison County Board ; Dr. J. D. Bragg, member Jackson County Board and Quarantine Officer ; J. Poitevent, member Hancock County Board.

Tennessee—Dr. G. B. Thornton, President Memphis Board and member State Board ; Dr. C. C. Fite, Secretary State Board.

Louisiana—Dr. Joseph Holt, President State Board; Dr. L. F. Salomon, Dr. L. H. Von Gohren, Hon. Jos. H. Shakspeare, Dr. Chas. E. Kells, Dr. S. R. Olliphant, members State Board; Edward Fenner, Esq., President Auxiliary Sanitary Association; Thos. S. Elder, Secretary, Messrs. Henry Ginder, Jos. Simon, W. S. Wilson, S. Hernsheim, James Jackson, Rev. Dr. R. A. Holland, members; Thomas J. Woodward, member Chamber of Commerce; Sam. M. Todd, member Mexican Exchange; N. D. Wallace, J. T. Brodnax, Jas. Flower, members Produce Exchange.

Texas—Dr. R. M. Swearingen, State Health Officer.

By invitation, the following named gentlemen attended the Conference: "Col. Glenn, United States Inspector of Public Buildings; Dr. John Godfrey, United States Marine Hospital Service, and Dr. S. M. Bemiss, National Board of Health.

Dr. Joseph Holt then moved that Dr. Johnston be elected Permanent Chairman and that Dr. Fite be elected Permanent Secretary. Carried unanimously.

Dr. L. F. Salomon, of the Louisiana State Board of Health, delivered the salutatory address, as follows:

Gentlemen—I have been requested, on the part of the Board of Health of the State of Louisiana, to say a few informal words to you in regard to the call which has brought you here away from your homes and business, with the sole object of the amelioration of the people whom you represent, and their protection, as far as in your power lies, from the introduction of foreign pestilence.

This Convention has met at the solicitation of the Board of Health of the State, and New Orleans has been selected as the place of meeting, because from the peculiar position occupied by this city geographically and commercially, and because of the fact that on account of these particular relations, we, as the Board of Health of the State of Louisiana, are looked to more than any other health body for the protection of not only our own and the adjoining Gulf States, but the entire Mississippi Valley as well. And in that capacity, as the guardians, as it were, of such a great extent of territory, we have judged it well to call together this gathering to discuss questions which are of the most vital importance, not only to the health of our people, but of their commercial and financial prosperity also, which latter naturally depends upon their freedom from disease.

We meet you upon the broad platform of philanthropy and

public interest, knowing that the discussions which shall occur in this meeting cannot be other than potent for good, characterized as they will be by good feeling and amity, candidly and freely giving expression to differences of opinion where they exist, with no thought of self-interest or petty animosities, but with the earnest effort to accomplish only what will redound to the general good.

Each one of you has received a circular stating the objects of this call and the subjects we thought it advisable to bring before you, it being understood that we do not confine ourselves to the discussion of these questions alone, for if any other matters suggest themselves, or if it is found that there are others bearing upon these, and equally as important, I think that I can state for this entire assemblage that such matters will be gladly listened to and receive their proper degree of attention.

The following are the questions which we have seen fit to present:

The necessity for the prompt interchange between State Boards of Health of information on all subjects relating to the public health.

The possibility of the introduction of infections or contagious diseases is the chief drawback of the prosperity of the Gulf ports. It is, therefore, the duty of State and municipal authorities to increase the resources and otherwise enlarge and strengthen the powers of Boards of Health of the several States bordering on the Gulf of Mexico.

Can an effective quarantine be enforced along the Gulf Coast?

How to enforce quarantine so as to produce the least possible injury to commerce.

Non-intercourse—under what circumstances justified.

Period of quarantine detention.

The proper disposal of non-infected and infested vessels under quarantine. Treatment of vessels and cargoes with a view to disinfection.

The advisability of petitioning Congress to require consular agents of the United States, residing at inter-tropical ports habitually or periodically infected with yellow fever, to cause all ships in such ports that are about to load for ports in the United States, to be thoroughly inspected and cleansed before receiving cargo, and a certificate furnished to that effect.

The utility and advisability of authorizing vessels trading between ports of the Gulf States and ports recognized as being within the yellow fever area or region, to carry, at their own expense, such sanitary inspectors as may be approved by Boards of Health in said States, such inspectors to be charged with the inspection and purification of vessels, prior to receiving cargoes, under consular direction, and to enforce proper sanitation on such vessels while in transit from a foreign port.

Importance of municipal sanitation.

Importance of instruction in the elements of hygiene in the public schools.

These are all questions of the most vital importance, bearing, as they directly do, upon the great subject of the preservation of public health and commercial prosperity, and will meet at your hands with the attention which their importance merits. It is our aim, it is our earnest intent and purpose to extend to all of you as representatives of great commonwealths whose interests are equally important, the right hand of fellowship, to the end that we may, by unity of purpose, accomplish one object. It has been said that life is too short to reconcile its contradictions, but although this may maintain in ordinary affairs in men's struggle for place and fortune, it does not hold in this great question of their protection from disease. In this matter we stand upon common ground, and whatever differences may have unfortunately existed heretofore, whatever causes may have been at work to destroy that mutual exchange of confidences, without which no good can be accomplished, we come together now with all differences healed to meet in consultation and by mutual interchange of views, with good will to all and malice toward none, aiming only to reach such conclusions as shall result in harmony of action.

When we shall have succeeded in teaching people that most of their diseases are due to a disregard of laws of health, when we shall have succeeded in teaching them that their commercial thrifths depends more upon the good sanitary condition of their ports than the few dollars that may be gleaned from a trade with ports which are equally as, or more negligent than they in matters of sanitation, then perhaps there will be no need for such meetings as this. But until we are able to do this, it appears to me that there is no other way of arriving at the adoption of such measures as shall accomplish the ends we have in view. And it is to be hoped that the deep significance of the questions brought before this Convention will not be lost sight of by those most directly interested, the people themselves, and that they, by their countenance and aid, will assist the health authorities in their endeavors.

Although small in numbers, this meeting represents all the States whose duty it is to guard the entire Gulf coast from pestilence, and in view of the peculiar circumstances now surrounding us, is perhaps the most important convention ever held in this city; and looking upon it in this light allow me to indulge the hope that your deliberations will accomplish much and your coming not be in vain; and that although all have come with preconceived ideas, and there may be many differences of opinion upon certain subjects, as there must be, for men do not all think alike, let us trust that all will be harmonized in the interest of public welfare. In constant watchfulness and unity of action lies our only safeguard

against the introduction of disease. Many diseases have been crushed out of existence by the growth of progress and enlightenment, many have been checked in their ravages and others mitigated, and while we in this convention may not be able to accomplish all at one blow, still we can count each step forward as one gained in the effort to eradicate and drive away from our shores the ever-recurring pestilence which threatens us with the return of each summer. This cannot be done without persistent effort. Let us begin now, and each succeeding year will surely see us advanced one step, be it ever so small, toward the attainment of our purpose, and the day will surely come when our Gulf coast will no longer be looked upon as a place to be dreaded and fled from during certain months of each year. When we stop to contemplate our present knowledge of yellow fever, and the inefficiency of the means with which we are acquainted for its limitation or destruction, I must admit that the prospect is not encouraging. But if we can succeed in the accomplishment of our object, if we can devise some means whereby we can give a reasonable assurance that we are able to protect this coast, then the day will not be far distant when, with the certain increase of our trade with foreign nations, the rapid increase in facilities of travel, and the strong, healthy development of Southern industries, our section of country will rise from the stagnation and depression which have blighted it these many years.

Gentlemen, I welcome you to the city of New Orleans.

The address was listened to attentively and received with applause.

On motion of Dr. Scales a committee of one from each State was appointed to draw up an order of business.

The chair appointed Dr. Ketchum, of Alabama; Dr. Thornton, of Tennessee; Dr. Oliphant, of Louisiana; Dr. Fordham, of Florida; Dr. Sale, of Mississippi.

After a recess of fifteen minutes the committee on the order of business made the following report:

Your committee appointed to prepare an order of business and discussion, beg leave to report the following subjects and questions for discussion in the following order:

MARITIME QUARANTINE.

1. Can an effective quarantine be enforced along the Gulf coast?

2. Best methods of coöperation between the States of the Gulf in effecting this object.

3. The most efficient quarantine, with the least injury to commerce.

4. Non-intercourse—under what circumstances justified.

5. Period of quarantine detention.

6. The proper disposal of non-infected and infected vessels under quarantine.

7. Treatment of vessels and cargoes, crew and passengers, with a view to disinfection.

8. The advisability of petitioning Congress to require consular agents of the United States, residing at inter-tropical ports, habitually or periodically infected with yellow fever, to cause all ships in such ports in the United States to be thoroughly inspected and cleansed before receiving cargo or sailing when in ballast, and a certificate furnished to that effect.

INTERSTATE AND LOCAL QUARANTINE.

1. The necessity of prompt interchange between State and municipal Boards of Health of information on all subjects relating to public health.

2. The suggestion that this Conference would make as to the best methods of preventing the spread of infectious diseases from one State to another.

3. The best methods of treatment by Boards of Health in infected localities for confining diseases and preventing its spread.

MUNICIPAL SANITATION.

The discussion on these several questions was continued until the meeting on the following day. At 10 o'clock, Tuesday, Dr. Joseph Holt, President of the Louisiana State Board of Health, will address the Conference on "Quarantine Improvement," after which the general discussion will be continued.

Miscellaneous business will be continued to adjournment.

On motion the above order of business was adopted.

The Secretary read the following letter:

OFFICE OF THE DIRECTOR-GENERAL,
The World's Industrial and Cotton Centennial Exposition, }
NEW ORLEANS, May 31, 1884.

Dr. Joseph Holt, President Board of Health :

Dear Sir—The committee of arrangements beg that you will

kindly extend an invitation to the members of the Conference on Quarantine to be present at the reception tendered by the citizens of New Orleans to Director-General E. A. Burke, Monday evening at 7:30 o'clock, at the Washington Artillery Hall.

Respectfully,

WM. B. SCHMIDT, Chairman.

Upon motion a vote of thanks was accorded to Mr. Schmidt, chairman, and the invitation was accepted.

Col. Glenn asked permission to address the Conference on the subject of the "Relationship of the United States Government to the State Boards of Health."

Dr. Ketchum said he thought this was not the time for this discussion.

Dr. Cochrane asked, what was intended by the address?

Col. Glenn said it was merely for the information of the Conference.

Dr. Cochrane said he did not think the Conference wanted any such information and was opposed to any such subject being brought up.

Dr. Scales said he wanted to agree among ourselves, and what the Government wanted to do was not a matter to be decided here.

Col. Glenn—"The order of business gives as a subject for discussion the advice to consular agents, and I thought I might give an idea of what had been done. I only desire to set myself right before the Convention."

Dr. Ketchum—"I only meant the Government to give a few additional instructions to consular agents."

Dr. Wight moved that the address be not made.

Dr. Thornton said he was in favor of hearing it.

Dr. Cochrane—"I am opposed to it if he intends to say anything either about the National Board of Health or the Marine Hospital service. I do not want to hear anything about either of them."

Dr. Joseph Holt—"This Conference is for a quiet talk in regard to the work of our Boards. I hope this assembly can talk over these matters without any reference to outside questions. The national question should not come up here; it would be the lever of discord, and would endanger the har-

monious association of States, and destroy the good we hope to accomplish. We, of Louisiana, have of course our own views, and we want to hear from the gentlemen from Tennessee and other States; we want nothing in regard to these discordant bodies. We can ignore them and do our duty by our people."

Col. Glenn—"I care nothing for the National Board of Health, or the Marine Hospital service, and did not intend to bring these questions in at all. I now desire to withdraw my request to make an address."

Dr. Cochrane was in favor of hearing the address in that event.

Dr. Holt moved that the address be asked for when the time for that discussion arrived.

Carried.

The question was taken up in regard to the necessity of prompt interchange between Boards of all subjects relating to public health. (This not being the regular order, the chairman having called it up by mistake.)

Dr. Ketchum spoke on the necessity of Boards acting fairly with each other and reporting promptly suspicious cases.

Dr. Salomon offered the following resolution:

Resolved, That the health organizations represented in this Conference pledge themselves to report promptly the appearance of cholera or yellow fever which may at any time be manifested.

Dr. Cochrane: "It is an excellent idea if it can be adhered to. Yellow fever had been in New Orleans at one time when the Louisiana Board did not report to me, as agreed on. They pledged themselves to the agreement, and did not abide by it. Unless the proper name of a disease be given, it is of no use to have an agreement. If dengue cases have black vomit and die, it is as dangerous as yellow fever, and is yellow fever. There was yellow fever in Pensacola last year, although the Board there denied it. Now, all suspicious cases should be reported, as well as those which are well marked."

Mr. Avery: "Pensacola did send the information as soon as it was determined that it was yellow fever."

Dr. Cochrane: "They did report one or two hospital cases, but the Board being composed of laymen, did not give the facts, perhaps because they did not know them."

Dr. Sale: "It is often extremely difficult to determine positively that a case is yellow fever. The diagnosis is sometimes difficult and obscure, and thus unintentional mistakes are made. We should have some definite plan to go by."

Dr. Scales: "There is a schedule which was adopted by the New Orleans Medical and Surgical Association, which would be a good rule to go by."

The question of diagnosis was further discussed by Drs. Cochrane, Sale and Ketchum, and Dr. Ketchum suggested that further action be postponed until the schedule could be read. Dr. Scales suggested that suspicious cases should also be reported.

Dr. Holt moved that Dr. Salomon and Dr. Ketchum be appointed a committee to prepare a resolution to be presented to the Conference, after examining into the matter further. Adopted.

"Can an effective quarantine be enforced along the gulf coast?" was announced as the next subject for discussion.

Dr. Cochrane said it was as impossible to enforce an absolute quarantine as it was to enforce the absolute prevention of the importation of contraband goods into the country. After some further remarks, Dr. Holt suggested that it was growing late, and moved that the Conference adjourn to 10 o'clock, Tuesday. Carried.

An invitation to attend the opening of the Sugar Exchange Tuesday at noon was accepted.

SECOND DAY'S SESSION.

The Conference was called to order by the Chairman, Dr. Wirt Johnston, of Mississippi.

Dr. Joseph Holt, President of the Louisiana Board, then read the following address, which was listened to with close attention:

QUARANTINE IMPROVEMENTS—IS THE PRESENT SYSTEM OF
QUARANTINE AN EXACT SCIENCE? ARE BOARDS OF
HEALTH IN THE GULF STATES DOING THEIR WHOLE
DUTY?

Gentlemen—It is the firm intention of the Board of Health of the State of Louisiana to adhere strictly to the policy of the quarantine pursued last year, and during the present summer and fall to push to the extremest verge of law the restrictive measures heretofore inforced. Reorganizing in the opening of an active campaign, it can follow no other course, however much convinced of the possibility of improvement.

Anticipating any inquiry which might arise touching my exact position on the subject of quarantine, I will preface my remarks, not with a *credo*, for to say I believe, implies the possibility of a doubt, whereas I know that yellow fever is transmissible, and have repeatedly seen it imported. If it can be imported, the converse is instantly concluded, that its importation can also be prevented. Such a logical sequence is perfectly apparent, but experience compels its moderation.

Absolute protection against the introduction of disease is the ideal of quarantine, its attainment the aim of Boards of Health. Failure does not impair the doctrine. When yellow fever evades quarantine the error is in the method and not in the principle. Where there is a fault, there is a possibility of its correction, to accomplish which becomes the duty of those who are the legally appointed custodians of this matter.

Into the hands of the State Boards of Health is committed the whole question of quarantine, its beginning, its ending, and all the details of its execution. The Chief Magistrate of the State accepts the Board of Health as the monitor whose dicta determine his action in all the affairs of public health. He issues his proclamation and sets in motion the machinery of law by its advice. Not to do so would be personally to assume all responsibility for consequences that might flow from such action, a position manifestly hazardous and unfair toward himself.

It follows, therefore, if the action of a Board of Health be wise or foolish, the praise or the condemnation must rest where it honestly belongs.

If the methods of quarantine are exact; if its results are uniformly successful; if its administrations are equable and just to all, to that Board of Health belongs the glory, and richly it deserves the fullest recognition of its services. If, on the contrary, its methods are uncertain and contradictory; if it establish a measure and presently fly to another; detain, disinfect and famigate a non-infected vessel this week, and before she is out of quarantine, next week declare a proclamation of non-intercourse, and turn her away to sea suffering enormous loss; if it drives upon a helpless few hard and oppressive measures, without warrant of law, and inflicts unavoidable in-

jury without fear of prosecution because of the uneasy state of the public mind; if, by these very measures, it impeaches the methods it has itself established and offered as guarantees of safety; if it is fractious, and fitful, and uncertain in its ways, so that none can predict what an hour may bring forth—such a Board of Health makes its own official record and will be judged upon it.

The mills of the gods grind slowly, but they grind exceeding fine, gentlemen; and it behooves us in our stations to deal justly, humanely, and with some humility; to sink out of sight that treacherous love of self and contempt of others, that pride which must inevitably bring a downfall.

If quarantine is perfect; if human genius can devise no improvement upon its present methods; if all that science and skill, chemistry and machinery can offer is only superfluous, quarantine is then an exact science; it is final, and Boards of Health have made it so.

Let us cut then this thread of suspense upon which we dangle our commerce. Let us turn to the merchants of Galveston, of New Orleans, Mobile, and of Pensacola, and speaking out the truth, say to them: Gentlemen, our city is strictly commercial; take away its commerce and its existence ceases; we need every dollar that can be invested in your ships and in your cargoes, in your railroads and in your freights; but our quarantine of to-day is all that you can ever expect.

If it is destructive to any; if it is neutralizing the efforts of your newspapers, of your agents and exchanges to cultivate friendly relations and reach out for trade; neutralizing your efforts to make this city command commerce, we are sorry for you. Just as it is, so it must remain. We frankly advise you, therefore, to take your money and your ships, with their cargoes and yourselves, gentlemen, and go to New York, to Baltimore, to Charleston, or wherever else you can find a people who have modernized their systems to suit their necessities.

If quarantine is perfect, we stand acquitted though it wipe commerce from the seas. If quarantine is imperfect, if it is awkward and tedious in its details; if we have failed to call to our aid the whole power of science and skill; if we are doing by hand that which should be done by steam; if we are applying agents to kill germs and fail to kill rats and roaches; if we are cleaning ships and not driving the water through their foul holds by the impelling power of steam until bilge water is pure enough to drink; if at heart we have no faith in that we pretend to do, and in the face of danger abandon our artillery and fly to the extreme resort; if in the face of all this, year by year we sit contentedly in the eternal round of talking, reading, writing, more talking, reading, writing, and advising proclamations of non-intercourse because yellow fever breaks out on one of our so-called disinfected vessels, while our people are languishing in poverty, and commerce stretches

her white wings and sails from us—away with such custodians of a people's health, their wealth, their destiny, and commit this sacred trust to men whose brains are inventive and whose hearts are courageous, who are quick to appreciate a great necessity and bold enough to meet it.

If quarantine can be improved, necessity will beget the invention, and God will raise up men untrammelled with respect for tradition and precedent—men who esteem the accumulated literature on yellow fever as trash unless it teaches how to manage it. We may pile volumes on top of volumes until we crush the libraries—yes, and commit them all to memory—and yet not advance the only important questions of prevention and cure the one-millionth part of a hair's breadth. What profiteth the accumulation of mere historic detail without such relevancy.

Boards of Health may gain all that was ever written or thought of on yellow fever and yet not possess wisdom. When they seek to learn rather than to teach, and in the humble spirit of inquiry search for truth, they will discover their errors, and will, in the matter of quarantine, plan and suggest remedies and urge them upon their legislative authorities. They will then possess both knowledge and wisdom, and are blameless.

But if they fail to seek and error is not discovered, remedy cannot be applied. From that moment they are morally responsible for every dollar deflected from their people because of restrictions that could have been avoided.

If yellow fever break out in port on a vessel declared cleansed, disinfected and fumigated, while the methods were inadequate to accomplish such results, so that scientifically she is neither, clean, disinfected or fumigated, the board is directly to blame, and if epidemic ensue they are chargeable. If they accomplish their work with reasonable thoroughness and the disease appear, they are exonerated. But such thoroughness is both troublesome and expensive.

It is indeed much easier for a Board of Health to meet and talk, and to urge upon the Governor some extraordinary measure of restriction, which is indeed correct, if it is the only thing that can be done. But if neither the only thing nor the best thing, and injury comes of it, who is to blame? But, unfortunately, who alone suffers? Who suffers, while the board itself may be landed to the skies for the display of genius, and an excess of all the cardinal virtues?

In our circular letter to State Boards of Health occurs this proposition, an epitome of all our troubles: "The possibility of the introduction of infectious or contagious diseases is the chief drawback to the prosperity of the Gulf ports." It should have read: "Is *the* drawback to the prosperity of the Gulf ports." Then follows a question, the first to challenge any Board of Health organized in the Gulf States, the one great inquiry of the Mississippi Valley.

"Can an effective quarantine be enforced along the Gulf coast?" A remarkable question indeed, unless we ourselves are in doubt. But first let us ask another question which accompanies this as its shadow: "Is an effective quarantine enforced along the Gulf coast?"

Let us keep out the musty cobwebs of history, and go back only four years. Pensacola, yellow fever twice; Ocean Springs, once; Brownsville, once; New Orleans, twice. Help thou my unbelief.

An effective quarantine can never be enforced until Boards of Health cut loose from primitive methods on a par with the wooden plow and old hand printing press, and urge upon their States measures in keeping with our civilization.

The next question in this circular letter is, "How to enforce quarantine so as to produce the least possible injury to commerce?" In the leading proposition we epitomized our trouble, in the latter question our duty. We can enforce such a quarantine only by devising plans of action such as promise a reasonable, if not a positive assurance of success.

As an illustration, let us examine such a plan for New Orleans.

When a vessel arrives at the mouth of the Mississippi, she is either infected or she is healthy. If we know her to be infected she is at once removed to the supplemental or lower station, for infected vessels only, where she will be actually cleansed, actually disinfected and fumigated, her sick removed to the local hospital.

She is an exceptional case, and will be dealt with exceptionally.

She will certainly not be allowed to endanger healthy vessels by mooring in their vicinity.

If at any time she wishes to put back to sea, she is at liberty to do so; but if she desires to come to our port, she will be detained until the Board can safely venture upon allowing her up.

We will understand better the particulars of treatment when we have described the course of a sailing ship through quarantine, no record of sickness on the voyage, a cargo of 30,000 bags of coffee, yellow fever epidemic in Rio, from whence she has cleared. She is brought alongside the wharf at the upper Quarantine Station, where she finds every arrangement for rapid discharging and reloading of cargo. The crew, with all their effects, is at once taken ashore, where, in a room provided, everything they carry, apparel and baggage, is subjected to powerful disinfection. Their clothing exchanged for other clothing already treated, and this, in turn, disinfected. They are then received at a commodious boarding house, comfortably prepared for them, there to undergo the prescribed detention. If one should fall ill, he is instantly removed to the hospital, as distant as can be located.

Hospital experience proves that yellow fever is conveyed through the medium, not of persons, but of things. Yellow fever has never invaded the Charity Hospital except in the regular march of an epidemic. In the meantime, a full corps of acclimated stevedores are busily engaged in breaking out the cargo and transferring it to the warehouse, already built by the United States Government for their accommodation, there to undergo fumigation. As soon as completely emptied, or at least sufficiently so to permit of thorough cleansing and fumigation, the quarantine tug, a compactly built small vessel, somewhat after the fashion of a fire tug for harbor protection, is run alongside the ship. A hose, attached to a powerful forcing pump aboard the tug, is let through the forward hatch down into the hold.

In order to flush the bilge quickly, it might be necessary to take up the timber plank, as a better examination could be had and the real condition ascertained. But whether this is done or not, or the ship be in ballast or not, she can be speedily and thoroughly washed. The pump is started and the washing begins while the ship's pumps are set to discharging the foul bilge-water. This continues until she is washed clean not only in the timbers and floor of the hold, but the ceiling and every available part. She is now pumped out, the hose removed, and then begins the disinfection and fumigation. Another large hose attached to a powerful exhaust fan is lowered into the same position as the first. The hatches and every other outlet are closely battened, with the exception of a small ventilating hatchway either at the bow or stern. A quantity of sulphur is put into the furnace connected with the fan, and ignited. The exhaust fan is started and sulphurous acid gas in immense volume and with tremendous force is driven into the timbers and air-strakes, into every crevice and part of that ship until she is completely filled.

In doing this we displace the mephitic and dangerous atmosphere closed in her when she started from Rio, and which, if allowed would have been set free at our levee—the infected atmosphere of Rio to commingle with the atmosphere of New Orleans, because of the negligence of its authorities, deadly ripe, perhaps, for its reception.

We have displaced this not only with a non-infected atmosphere, but with one intensely germicidal—one that destroys organic elements in the air, or on exposed surfaces with instant greediness. As for the fumigation agent to be selected, we may use through this apparatus sulphurous acid gas, chlorine or the nitric acid fumes, produced by pouring nitric acid upon copper filings, of which Dr. Wiblin, of Southampton, says that all goods may be safely and satisfactorily disinfected by this agent. The fumes so produced are so powerful that no animalculæ can exist in them for more than two seconds, and the portholes being closed for twelve hours, the process cannot fail

to be effective. For my own part, I believe the sulphurous acid to be all that we can desire.

After a few hours the hatches are removed and pure air is driven in to facilitate clearing the ship of the fumes. She is reloaded and, with her captain on board, proceeds at once to the city, there to be discharged only by an acclimated gang.

Her export freights must be ready. She is at once reloaded and starts on her voyage. If the term of detention of her crew has not already expired, she touches at Quaaantine to take on such as have engaged to reship, and puts to sea, with no more detention than was required to cleanse her, with the utmost expedition, which alone was worth the trouble.

Such a method would soon be adopted at tropical ports before loading, which would greatly lessen the danger and facilitate our work. To avoid complicating the legal points the Board of Health gives the ship the option of remaining at the station with the crew on board the full term of detention, or leave the crew there. Owners will rather leave the crew, and so contract with them, if necessary, as soon as it becomes known that the regulations of this port will enable ships to lessen their detention. If yellow fever were to break out on a vessel conscientiously thus treated, we might truly say that cleansing and fumigation are nothing more than foolish observances to exorcise a malignant spirit, mere shams to trick the people of the interior.

We might indeed abandon the hope of ever seeing any of our Gulf ports great centres of trade. But until that most unlikely thing did occur, we would adhere to our methods, and not suddenly declare a sixty days quarantine or non-intercourse and send back to sea a vessel already fifteen days in quarantine and subjected to disinfection and fumigation. At any rate, if we did, we would not present them a bill for our services.

The word quarantine implies simple detention, originally forty days. A vessel detained ten days or sixty days is no more a healthy ship at the end of that time than she was at the beginning. To make her healthy while we are detaining her requires something more—a something suggested by common sense—which, too, has acted admirably in ports where thoroughly supplied.

She is sick; we are the physicians and must treat her. Cleansing and disinfecting a ship is like putting out a fire. She may be deluged, but if we leave the fire burning in only one small place the ship will be lost. Not because water and carbonic acid will not put out fire, but because as firemen we do not understand the business.

In this plan, roughly outlined, are many points of detail such as would necessarily require much thought and modification.

Some might appear as perplexing difficulties. However, a

very little familiarity with the system would soon teach us its defects and and the required remedies. Such obstacles are in the path of every enterprise. If the plan is not a good one let some one present a better. But let us keep on moving until we demonstrate the success or the hopelessness of our cause. Boards of Health must no longer float upon a sea of uncertainty, themselves derelicts in the highway of commerce.

The great transcontinental lines of railway and their terminal ports of the East are exceedingly jealous of every port of entry of the Gulf States. They regard with intense disfavor any attempt to direct in its natural channels toward us a part of that inter-tropical American trade which they know to be richer than that of India and the islands of the East, not second to that of China.

They secretly rejoice in the ignorance of some of our superficial economists, who flippantly dispose of our tropical trade as a few bananas and some pineapples, and a few bags of coffee—a commerce which is only in its inception as compared with its future magnitude, but is even now crowding the ports of Liverpool, Havre and New York with the richest products of the earth. The commerce of regions which more than 200 years ago wrecked in a flood of gold the kingdom of Spain.

To enter this field in competition our States must have an equal chance with others. How disastrous, then, that system of quarantine which compels their Boards of Health, while earnestly endeavoring to keep out pestilence, also to suspend their commerce five months out of the twelve. A system which compels the conservators of the public health to become destroyers of the public livelihood by a coalition with a rival or combination, overwhelming in power and advantage.

Look upon this map, and you will see that the Gulf ports are central between four vast continents, and nearest to the West Indies. They command by geographical position the most favored regions of the globe. Already the busy hands of capital are dividing with canals and spanning with railways the Isthmus of Panama and Tehuantepec, so that continents beyond may become tributary to these ports.

These cities are geographically central, but what are they in the commercial world? They have been plucked from the centre and placed down here on the lower edge.

An inefficient quarantine has struck across the face of this grand field a line, called the Tropic of Cancer, and has said to these cities: "Thus far shalt thou go and no farther."

The genius of man may project vast enterprises; it may cut canals, build marine railroads, jetty the Mississippi river, deepen harbors, establish exchanges, and compel the admiration of a world in the sublime energy which, in a time, as by magic, rears out of a chaos of material an Industrial Exposition so huge, so varied in its appointments and dazzling in its splendors that the mind reels before it.

Genius and energy may accomplish all this, but will never establish in the Gulf ports of the Southern States a commerce upon a solid foundation until municipal authorities and the people at large recognize at its true commercial value the principle of sanitation, and apply themselves earnestly and enthusiastically to a reformation in the methods of cleansing and purifying their cities, and until Boards of Health no longer go to war and cease to inflict arbitrary measures, declaring embargoes upon trade as the only remedy of their own deficiencies.

The plan of improving quarantine methods would cost money. Suppose it cost \$20,000 or \$60,000, what is that compared with the value of the unobstructed commerce of a great centre, sweeping the circle of the world for trade? If it improve the guarantees against importation of pestilence, what is that amount as compared with the blessing shed upon the cities of the Gulf and the millions of people behind us.

To prevent the introduction of yellow fever one single year would justify a thousand times the expenditure. These quarantines should be perfected at any price, excepting the bartering or putting in jeopardy of one iota of the rights and sovereignty of the State.

In regard to the question of innovation, we may be told that the people of the interior are accustomed to our present ways and will object to changes. We might tersely reply that they object to our accustomed ways and desire the changes. The people of Central and Northern Florida, Alabama, Mississippi, Louisiana, Texas, the people of Tennessee, Missouri and Kentucky, are every whit as intelligent, as well educated, as rational and progressive as we, and possibly more inventive. Their experiences give them the right to tell us that yellow fever must be kept out. They do not prescribe the way. They do not fear innovation or any other evidence of care and watchfulness. They do fear inactivity and the unvarying routine of those methods which have invited their confidence, to betray it time and again.

If a hostile fleet menaced our shore, they would demand of us a brave defense, but would not expect of us to mount our batteries with old-time, smooth-bore twenty-four pounders, and to arm our citizens with flint-locks hallowed by the memory of our grandfathers. They would be shocked and indignant if we did not call to our aid the science and enginery of modern warfare. What surely must be their amazement and terror when, in the year 1884, in the face of an enemy more implacable and deadly than a British fleet, they see us, in all the panoply of war, armed with the identical matchlock and blunderbuss of the Venitian system of 1484.

And now, gentlemen, I am prepared to answer categorically the questions propounded in the circular letter.

First, the proposition, "The possibility of the introduction

of infectious or contagious diseases is the chief drawback to the prosperity of the Gulf ports," is simply to utter a fearful verity; as plain as to say, the sun gives light.

In reply to the first question, I declare, as a solemn conviction, that a quarantine vastly superior to the present can be enforced along the Gulf coast. To declare it absolutely effective would require years of testing.

In reply to the second, I believe that quarantine can be enforced in such a manner as to secure the highest efficiency with the least possible injury to commerce, so that Galveston, New Orleans, Pensacola and Mobile will be at liberty, every month in the year, to reach out for all the trade they can get; and, above all, to recapture some of that from Baltimore and New York.

In reply to the third, I believe that non-intercourse, under a system of rational, strictly scientific quarantine, would be absurd, contradictory, the offspring of an unwarrantable cowardice.

To the fourth: Period of quarantine detention. Days of detention would be reduced to hours; because ships cleansed, disinfected and fumigated in name would be so in fact. There could be no object in holding such a vessel in quarantine, except to serve as a hotel for the crew; which, under the improved system, would be provided on shore. Commanders of vessels would discountenance the carrying of passengers during the quarantine season.

To the fifth: The proper disposal of non-infected and infected vessels under quarantine is complete separation and isolation of the latter at a station for infected vessels only.

To the sixth: The treatment of vessels and cargoes with a view to disinfection is conscientious thoroughness in the application of scientific measures.

In the plan suggested there is no principle not contained in the present system. The only difference is that it contemplates thoroughness of execution and perfect consistency with its own doctrines.

Simple detention is the primitive method of barbarism, and, while stupidly easy to comprehend, has been uniformly a failure. Non-intercourse, the cordon sanitaire and shot-gun quarantine are expressions of terror and helplessness, contradictory of every other effort of prevention.

There is no such thing as a Board of Health maintaining consistently its own principles and abandoning them in the face of danger. It may do so under a pressure of expediency, but it certainly impeaches its former action and declares its lack of faith.

Finally, gentlemen, if ever the Boards of Health of the Gulf States begin a high career of achievement, there are but two real obstacles in the way to success.

The one is a total failure on the part of the people and the government of their States to listen to them. A deadly apathy. In such a case the board is expurgated of all blame.

The other is policy. Let Boards of Health beware the leaven of policy. Duty and truth are established and eternal, while policy shifts with every varying breeze, and is ever at war with truth. Personal policy, subordinated to municipal policy, to State policy, to a vicious commercial policy, as effectually poisons a Board of Health as the contagion of yellow fever the city it attempts to protect. We cannot serve two masters. A Board of Health with policy is a Board of Health without truth.

Logic is the mathematics of reason. If its problems are correctly stated, its conclusions are true and unassailable. Therefore, as the sum of all that has been said, if the quarantine system in the Gulf States is not an exact science, its developments not yet perfected, the Boards of Health of the Gulf States are not doing their whole duty when they accept and enforce measures, crude, primitive, injurious, and make no effort to ameliorate this strain upon our commerce by invoking the power of science.

Applied science in the methods of quarantine is the only force potent to sever the coalition of the Boards of Health with commercial rivals, and to furnish guarantees against the importation of yellow fever worthy of respect and confidence.

Dr. Holt was repeatedly interrupted during the course of his reading by applause.

Dr. Fite said : "The address which we have just heard from Dr. Holt is the most sensible, practical address on the subjects referred to I have ever listened to. One of the greatest obstacles sanitarians have before them in this country is the tendency of Boards of Health to spend the time in talking and printing books instead of actual work. We find most of our Boards are debating societies, and personal pride and theoretical views on abstract subjects are the most prominent points brought out in many of our meetings. This address of the new president of the Louisiana State Board gives promise of a different kind of work, in this important State at least. In it is an honest, fearless statement of the truth. Louisiana is at last in line on these important questions, and the pronounced practical plans of Dr. Holt should be received with a thrill of pleasure and satisfaction by every intelligent man all along the Gulf line and throughout the great Valley. We of Tennessee will be glad to indorse and sustain the efforts of

the brave men of Louisiana, who say that yellow fever and cholera shall be kept from our borders."

Dr. Ketchum: "I heartily endorse the address of Dr. Holt and the remarks made by Dr. Fite, but Boards are not to blame as much as it might appear, as they have a great deal to do to educate the people. I hope the address will be published and freely distributed."

Dr. Avery: "We are not in a condition financially in Pensacola to do the necessary work, and we can only adopt plans that can be carried out. I am anxious to see the address published, and endorse the views of the last two speakers also, and would like to see the address freely circulated."

Dr. Devron said that Louisiana had no funds at her disposal to do the work as it should be done, but we are desirous and hope that the Legislature will give the necessary State aid.

Dr. Cochrane thought that the address should be published in all the leading papers any way.

Dr. Rice moved that the report be received and endorsed by the Conference. Carried unanimously.

Dr. Cochrane and Dr. Ketchum moved that the address be published in pamphlet form and distributed throughout the States interested. Carried.

Mr. T. J. Woodward said that the commercial bodies of New Orleans would sustain Dr. Holt and the State Board, and that the people of New Orleans had great faith in their methods, honesty of purpose and their policy.

The following report was then made by the committee on the proposition of the necessity of prompt interchange between State and municipal Boards of Health of information on all subjects relating to public health:

Be it resolved, That each and every health organization represented in this Convention pledge itself to promptly furnish to each other all information in regard to the appearance of cholera and yellow fever, or suspicious cases of yellow fever.

We recommend that for the purpose indicated in the above resolution the following groups of symptoms shall be considered to indicate yellow fever and suspicious cases:

I. The following groups of symptoms shall be considered to indicate yellow fever:

Group 1.—A person after a sudden attack has fever of one paroxysm, attended with marked congestion or blood stasis of capillaries of surface, conjunctivæ and gums, with a history of probable exposure to infection, and no history of a previous attack of yellow fever.

Group 2.—A person after a sudden attack has a fever of one paroxysm, followed by unusual prostration, albuminous urine, yellowness of conjunctivæ or skin, and having no positively authenticated history of previous attack of yellow fever.

Group 3.—A person has a fever of one paroxysm, albuminous urine, black vomit, suppression of urine, general hemorrhagic tendency under circumstances where exposure to infection is a possibility.

II. *Suspicious cases of yellow fever.*—The following symptoms associated with a fever of one paroxysm in a patient who has apparently been exposed to infection, and has never had yellow fever shall be held to justify in either of the six following cases a suspicion of this disease, viz :

1. Suddenness of attack either with violent pain in the head and back, injected eyes and face, or with marked congestion of the superficial capillaries.

2. Want of that correlation between pulse and temperature usual to other forms of fever.

3. Albuminous urine.

4. Black vomit.

5. General hemorrhagic tendency.

6. Yellowness of the skin.

The following cases shall also be deemed suspicious :

7. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever

8. Any case respecting which efforts are made to conceal its existence, full history and true nature.

In the event of death of a suspicious case a post-mortem examination should be made, when practicable. Both before and after death, yellow fever is specially and preëminently characterized by the fact that it is *par excellence* a hemorrhagic fever, marked by capillary congestion and its sequelæ, hence post-mortem evidence of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion.

The above were adopted by the New Orleans Medical and Surgical Association and the Louisiana State Medical Society.

Respectfully submitted,

GEO. A. KETCHUM, of Mobile,

L. F. SALOMON, of New Orleans.

When the resolutions had been submitted to the conference for action, a very interesting discussion was carried on, as to the good result of a careful diagnosis of a suspicious case of

yellow fever and a correct report of the symptoms, and then one of the main objects for which this convention had assembled would be accomplished.

Dr. Sale moved that the report be adopted.

Mr. Avery said that he was doubtful in regard to the propriety of reporting cases that were called suspicious cases only.

Dr. Rice said it should not take very long to determine a case.

Dr. Sale: "Any and every kind of case should be reported; of course a case is not a suspicious case and is not to be so reported unless a medical expert said it was a suspicious case."

Dr. Cochrane spoke at some length on the danger of suspicion and lack of confidence, and gave a detailed history of the action of Pensacola and of the Alabama board last year as a case in point.

Dr. Thornton said Memphis would not establish a quarantine until a suspicious case was announced down the river. The authorities there want to coöperate with Louisiana, and we now have more confidence than formerly in Louisiana, but Memphis is afraid of New Orleans during the summer months, and a suspicious case here would cause instant quarantine orders, and they would be enforced.

Dr. Chaillé spoke in regard to suspicious cases of fever, and said any case is a suspicious case in which reputable physicians disagree in regard to the diagnosis.

Dr. Ketchum said that when Mobile was satisfied that correct information would be given them, they could act advisedly and not hastily.

Dr. Cochrane and Dr. Sale spoke in regard to the question of quarantine on information of suspicious cases.

Dr. Sale asked Dr. Johnston in regard to the policy of the sanitary council of the Mississippi Valley.

Dr. Johnston said, that owing to illness, he was not present at the meeting of the council at Memphis, in March, and called on Dr. Thornton, who spoke at length on the former policy of the council, and the methods in vogue last year by

the States composing it, also in regard to the precautions Memphis would take in the future.

Mr. Avery gave a history of the methods of the Pensacola Board in regard to yellow fever, and defended the actions of his Board.

Dr. Chaillé said that confidence would do away with suspicion, and we should all agree to stand by the resolution, whether it suited us exactly or not. A clear statement of facts was the only method to be thought of, and there should be no misunderstanding about it.

Mr. Avery then withdrew his objections to that part of the resolutions in regard to suspicious cases, and they were then unanimously adopted as a whole.

Dr. Thornton then offered the following resolution :

Whereas, there is no absolute safety from yellow fever in the Mississippi Valley country, if vessels are allowed to enter the Mississippi river from an infected port at a time of the year when the infection is liable to spread ; and whereas, the United States Marine Hospital Service, the only Federal authority invested with adequate funds, has opened the quarantine station on Ship Island, and is likewise invested with power to co-operate with State and local authorities, if called upon by them, and maritime quarantine and inspection stations along the coast ; therefore

Resolved, That the Marine Hospital Service be called upon to assume the charge and responsibility of this coast quarantine and inspection service for the next four months.

Dr. Salomon said he would second the resolution merely to get it before the Conference, as there was no second. The Chairman declared the resolution out of order at the present time. It was then moved to suspend the rules so as to bring it up. Moved to table the motion to suspend the rules. Dr. Holt moved that each State be allowed two votes. Some one moved to adjourn to attend the opening of the Sugar Exchange. carried.

AFTERNOON SESSION, 2 P. M.

The motion to allow each State two votes was called up and carried. The motion to table the motion to suspend the rules was to act on the resolution of Dr. Thornton was then taken up, and the States were called and voted as follows ;

Florida, aye, aye; Alabama, aye, aye. Mississippi being called, the delegates from that State asked leave to withdraw temporarily. Dr. Holt made a point of order, and moved that in the future no gentleman not a delegate be allowed to speak, excepting Col. Glenn, who had already been invited by the Conference to speak. Agreed to.

Louisiana being called, Dr. Holt said they would vote nay, merely to get the resolution before the meeting to dispose of it.

Dr. Cochrane said he had understood that the Conference was not to touch that question and it was useless and out of place. Mississippi asked to be excused from voting and the request was granted. Texas voted aye, aye. Tennessee voted aye, nay. The vote stood: To table the motion to suspend the rules so as to bring the resolution up, aye, 7; nay, 3.

Dr. Salomon introduced the following resolution:

Inasmuch as the telegraphing of suspicious cases, or absolutely defined cases, from the point of occurrences to a dozen or more other points, and perhaps the necessity of telegraphing detailed full items daily of such cases will be expensive to the authorities telegraphing, and will lead to brevity and imperfection; that said telegraphic information shall be paid for by the authorities receiving the same, in order to divide the expense and put the expense on the point benefited.

Upon motion the resolution was adopted.

The question now being "Best Methods of Coöperation between the States of the Gulf in effecting this object," Dr. Thornton said this could only be done by the National Board of Health and the Boards in this Conference have been and are now on record on this question, he therefore offered the following resolution, which was declared out of order by the Chair:

Resolved, That a committee of three be appointed to draft suitable resolutions, memorializing Congress to reinvest the National Board of Health with proper means for coöperating with State local Boards of Health in the prevention of the introduction and spread of infectious diseases, notably yellow fever, when called upon by said Boards of Health.

Dr. Scales said he did not care who had charge of Ship Island, but he would not send all infected vessels there to be purified and quarantined.

Col. Glenn then read a resolution which he said he desired to bring in, but the chair ruled it out of order.

Dr. Holt said that the Louisiana Board agreed with what Dr. Scales said in regard to uniformity of action. He then moved that the matter be referred to a committee with power to make a report.

Dr. Scales moved an amendment that the committee be one from each State, to whom the entire matter be referred.

Drs. Ketchum, Holt and Cochran spoke further on the motion, which was then adopted and the following committee appointed :

Dr. Scales, of Alabama ; Dr. Hargis, of Florida ; Dr. Fite, of Tennessee ; Dr. Rice, of Mississippi ; Dr. Holt, of Louisiana ; Dr. Swearinger, of Texas ; Dr. Champlin, of the lower Mississippi counties.

Dr. Scales asked that Dr. Ketchum be placed in his stead. The request was granted.

A communication with accompanying resolutions from Col. W. M. Smallwood, of the Louisiana State Board was received and read.

Dr. Cochrane addressed the Conference on the subject of disinfection of ships and in regard to quarantine.

Dr. Stanford Chaillé spoke in regard to yellow fever detention, and said that six days was, in his opinion, the longest period necessary, as it was the longest period of incubation.

He urged that the non-intercourse policy was a disgrace to sanitary science, but it was better than imperfect regulations or inefficient quarantine.

"The suggestions that this Conference would make as to the best methods of preventing the spread of infectious diseases from one State to another."

Dr. Cochrane spoke at some length on this subject and the detention of persons, clothing and vessels, and the proper use of disinfectants, so as to prevent the introduction and spread of epidemics in our Southern cities and towns, and on the subject of the transmission of infectious diseases by common carriers and the baggage belonging to the passenger. He asserted that empty freight cars or a bar of railroad iron did not carry

the germ of yellow fever, but the person and the clothing was the agency by which contagious diseases were disseminated. The germ of cholera could be conveyed by the means of a railway train, but yellow fever he felt very certain could not, in passing through a State, and he illustrated the absurdity of a quarantine in the case of railroads, and putting this kind of transit to the past inconvenience to which it had been subjected, but he favored stations for detention and inspection. Dr. Sale asserted that the woolen upholstery used on railroad trains was an instrument by which yellow fever could be disseminated.

Dr. Swearingen, of Texas, addressed the Conference on a system which he had adopted for the inspection of railroad trains, and his method he was very certain would meet the desired end. He had a station so arranged that trains and baggage could be so separated and disinfected as to not endanger others, and the plan would work well.

Dr. Fite moved that a committee of one from each State be appointed to formulate suggestions as to the best means to handle the subject of infectious diseases and to suppress their spread from one State to another. Carried.

The following committee was appointed: Dr. Cochrane, of Alabama; Dr. Anderson, of Florida; Dr. Taylor, of Mississippi; Dr. Thornton, of Tennessee; Dr. Salomon, of Louisiana; Dr. Swearingen, of Texas.

The question of "The best methods of treatment by Boards of Health in infected localities for confining diseases and preventing their spread," was then discussed and referred to the last named committee.

The resolution, which had been prepared by Col. Glenn, was, at his request, presented by Dr. Swearingen. It was as follows:

Resolved by the Conference of the Boards of Health of the States assembled, That the best interests of the whole country are involved in a disregard of all subjects except security for the health of the people interested; that the Conference recognizes the willingness of the government to aid the local authorities in emergencies, and that willingness is appreciated, no matter through what channel it may be communicated.

After some discussion a motion to table the resolution was made. The States being called the vote stood, Florida no, no; Alabama, aye, aye; Mississippi asked to be excused from voting.

Dr. Fife said: "Mississippi has stood on record on this question as has Tennessee, and should not be afraid to vote her sentiments. I object to Mississippi being excused from voting."

Dr. Rice: "Mississippi is not afraid to declare herself; we are opposed to the Marine Hospital service and in favor of the National Board of Health; we only ask to be excused from voting because we do not intend to be bound by the action of the Council if she sustains the Marine Hospital service."

It being explained that the vote to table would not bind the States, Mississippi voted aye, aye; Louisiana voted no, no. Dr. Holt explained that Louisiana voted no to get the resolution before the Conference merely to amend it. Texas voted no, no. Dr. Swearingen said it was a profoundly indifferent matter to him who controlled the national fund. Tennessee voted aye, aye. The vote standing 6 to 6, the Chairman declared the motion to table lost.

The resolution was then further discussed.

Dr. Ketchum opposing, no one spoke in favor of it, and Dr. Swearingen then withdrew it.

Dr. Holt said he now desired to explain what the Louisiana Board meant by its action. He was not afraid of the National Board of Health, or of the Marine Hospital service. We do not propose to bother ourselves about either of them and this Council of the States is right not to entertain any proposition in regard to the National question. We have our own work to do and will do it, and the rights of the States should not be interfered with. Did not intend by our vote to appear to be in favor of either of them.

Dr. Thornton then called up his resolution asking Congress to take action, but the motion to take up was tabled.

The Conference then adjourned until 11, A. M., the next day.

THIRD DAY'S SESSION.

The Conference was called to order by the Chairman, Dr. Johnston, of Mississippi, at 11 A. M.

The following telegram was read :

AUGUSTA, Ga., June 4, 1884.

Dr. Wirt Johnston, President Sanitary Conference :

Will not the Sanitary Conference support Senator Brown's bill before the Senate relative to yellow fever? See Congressional proceedings of yesterday.

W. H. DOUGHTY.

Dr. Johnston stated that he had seen no notice of the bill, and there was nothing in regard to it in the morning papers, so no action was taken on the telegram.

Dr. Godfrey, of the Marine Hospital Service, asked to be allowed to ask the Conference a question. Upon motion of Dr. Cochrane it was allowed.

Dr. Godfrey then said he desired to know whether he was a delegate or not. Dr. Holt had said to him not to register, and he now desired to know whether he could register or not. Dr. Salomon said he was opposed to having either the Marine Hospital Service of the National Board represented; after Dr. Holt invited the Marine Service to have a representative present, he asked that the National Board be invited to do the same, and Dr. Bemis was asked to be present.

Dr. Holt said Dr. Chaillé was here to represent the National Board, and if he was here in that capacity, he saw no objections to Dr. Godfrey being here. Dr. Chaillé said he was here as a member of the New Orleans Auxilliary Sanitary Association, and not for the Board. Dr. Holt said in that event he withdrew his remarks.

Dr. Cochrane said the conference could decide as to its membership. Dr. Chaillé said he had not voted on any question.

Dr. Cochrane said to settle the matter he would move that Dr. Godfrey be allowed to register as a delegate. Drs. Holt and Ketchum spoke against it. Dr. Rice and Dr. Fite said

they were opposed to it. The States being called, the vote was unanimously no.

The committee, to whom was referred the entire question of maritime quarantine, then made the following report through the Secretary.

REPORT OF THE COMMITTEE ON MARITIME QUARANTINE.

The question having been submitted to your committee, we beg leave to make the following report:

1. Can an effective quarantine be enforced along the Gulf coast?

It is the opinion of your committee that this and the second question of the series are best answered in the ideal plan suggested by the president of the Louisiana State Board of Health in his address on quarantine improvement, as follows:

2 How to enforce quarantine as to produce the least possible injury to commerce.

We can enforce such a quarantine only by devising plans of action such as promise a reasonable, if not a positive assurance of success.

As an illustration, let us examine such a plan for New Orleans.

When a vessel arrives at the mouth of the Mississippi she is either infected or she is healthy. If we know her to be infected she is at once removed to the supplemental or lower station, for infected vessels only, where she will be actually cleansed, actually disinfected and fumigated, her sick removed to the local hospital.

She is an exceptional case and will be dealt with exceptionally.

She will certainly not be allowed to endanger healthy vessels by mooring in their vicinity.

If at any time she wishes to put back to sea she is at liberty to do so; but if she desires to come into our port, she will be detained until the Board can safely venture upon allowing her up.

We will understand better the particulars of treatment when we have described the course of a sailing ship through quarantine, no record of sickness on the voyage, a cargo of 30,000 bags of coffee, yellow fever epidemic in Rio, from whence she has cleared. She is brought alongside the wharf at the upper Quarantine Station, where she finds every arrangement for the rapid discharge and reloading of cargo. The crew, with all their effects, is at once taken ashore, where, in a room provided, everything they carry, apparel and baggage, is subjected to powerful disinfection. They are then received at a commodious boarding-house, comfortably prepared for them, there to undergo the prescribed detention. Their clothing

exchanged for other clothing already treated, and this in turn disinfected. If one should fall ill, he is instantly removed to the hospital, as distant as can be located.

In the meantime a full corps of acclimated stevedores are busily engaged in breaking out the cargo and transferring it to the warehouse, already built by the United States Government for their accommodation, there to undergo fumigation. As soon as completely emptied, or at least sufficiently so to permit of thorough cleansing and fumigation, the quarantine tug, a compactly built small vessel, somewhat after the fashion of a fire tug, for harbor protection, is run alongside the ship. A hose, attached to a powerful forcing pump aboard the tug, is let through the foreward hatchway down into the hold.

In order to flush the bilge quickly, it might be necessary to take up the timber plank, as a better examination could be had and the real condition ascertained. But whether this be done or not, or the ship be in ballast or not, she can be speedily and thoroughly washed. The pump is started and the washing begins while the ship's pumps are set to discharging the foul bilge water. This continues until she is washed clean, not only in the timbers and floor of the hold, but the ceiling and every available part. She is now pumped out, the hose removed, and then begins the disinfection and fumigation. Another large hose attached to a powerful exhaust fan is lowered into the same position as the first. The hatches and every other outlet are closely battened, with the exception of a small ventilating hatchway, either at the bow or stern. A quantity of sulphur is put into the furnace connected with the fan and ignited. The exhaust fan is started and sulphurous acid in immense volume and with tremendous force is driven into the timbers and air-strakes, into every crevice and part of that ship until she is completely filled.

In doing this we displace the mephitic and dangerous atmosphere closed in her when she started from Rio, and which, if allowed, would have been set free at our levee—the infected atmosphere of Rio to commingle with the atmosphere of New Orleans, deadly ripe, perhaps, for its reception.

We have displaced this not only with a non-infected atmosphere, but with one intensely germicidal—one that destroys organic elements in the air, or on exposed surfaces, with instant greediness. As for the fumigating agent to be selected, we may use through this apparatus sulphurous acid gas, chlorine, or the nitric acid fumes, produced by pouring nitrous acid upon copper filings. The fumes so produced are so powerful that no animalculæ can exist in them for more than two seconds, and the portholes being closed for twelve hours, the process cannot fail to be effective. For my own part, I believe the sulphurous acid to be all that we can desire.

After a few hours the hatches are removed and pure air is

driven in to facilitate clearing the ship of the fumes. She is reloaded and, with her captain on board, proceeds at once to the city, there to be discharged only by an acclimated gang. Her export freights must be ready. She is at once reloaded and starts on her voyage. If the term of detention of her crew has not already expired, she touches at Quarantine to take on such as have engaged to reship, and puts to sea, with no more detention than was required to cleanse her, with the utmost expedition, which alone was worth the trouble.

Such a method would soon be adopted at tropical ports before loading, which would greatly lessen the danger and facilitate our work. To avoid complicating the legal points the Board of Health gives the ship the option of remaining at the station with the crew on board the full term of detention or leave the crew there. Owners will rather leave the crew, and so contract with them, if necessary, as soon as it becomes known that the regulations of the port will enable ships to lessen their detention. If yellow fever were to break out on a vessel conscientiously thus treated, we might truly say that cleansing and fumigation are nothing more than fetish observances to exorcise a malignant spirit, mere shams to trick the people of the interior.

We might abandon the hope of ever seeing any of our Gulf ports great centres of trade. But until that most unlikely thing did occur, we would adhere to our methods, and not suddenly declare a sixty days quarantine or non-intercourse and send back to sea a vessel already fifteen days in quarantine and subjected to disinfection and fumigation. At any rate, if we did, we would not present them a bill for our services.

There will never be established in the Gulf ports of the Southern States a commerce upon a solid foundation until municipal authorities and the people at large recognize at its true commercial value the principle of sanitation, and apply themselves earnestly and enthusiastically to a reformation in the methods of cleansing and purifying their cities, and until Boards of Health no longer go to war and cease to inflict arbitrary measures, declaring embargoes upon trade as the only remedy of their own deficiencies.

The plan of improving quarantine methods would cost money. Suppose it cost \$20,000 or \$60,000, what is that compared with the value of the unobstructed commerce of a great centre, sweeping the circle of the world for trade? If it improve the guarantees against importation of pestilence, what is that amount as compared with the blessing shed upon the cities of the Gulf and the millions of people behind us.

To prevent the introduction of yellow fever one single year would justify a thousand times the expenditure. These quarantines should be perfected at any price, excepting the bartering or putting in jeopardy of one iota of the rights and sovereignty of the State.

Applied science in the methods of quarantine is the only force potent to sever the coalition of Boards of Health with commercial rivals, and to furnish guarantees against the importation of yellow fever worthy of respect and confidence.

The above plan is submitted as the only one which, in the opinion of your committee, meets the requirement of a quarantine embodying the highest efficiency in the guarantees against importation of pestilence, while at the same time causing the least possible injury to commerce. The present methods of quarantine are, in the opinion of your committee, too vulnerable for criticism. While inflicting upon commerce the extremest hinderance, and oppressively inconvenient to all, they are not reliable in any of the guarantees against the importation of infection.

We would urge upon the boards here represented the rigid execution of all the methods now in vogue to secure such safety as the present system may possibly afford, and that the Boards of Health in the several States of the Gulf immediately urge upon their several legislative bodies and upon their people the earliest adoption of an improved system of quarantine in accordance with the foregoing plan.

3. Non-intercourse—under what circumstances justified.

We can but express the opinion that under a system of rational, strictly scientific quarantine, non-intercourse is never necessary to efficiency in a sanitary point of view, and can only be damaging to commercial interests and violative of every instinct of humanity. Recognizing the fact that the present system, as pursued at the Gulf ports, does not furnish a reasonable security at all times; exigencies may arise demanding either absolute non-intercourse, or the nearest approximation that can be attained in extended detention of 30 days or 60 days, which is the equivalent.

4. Period of quarantine detention.

Under the improved system herein indorsed days of detention would be reduced to hours, because ships cleansed, disinfected and fumigated in name would be so in fact. There could be no object in holding such a vessel in quarantine, except to serve as a hotel for the crew; which, under the improved system, would be provided on shore. Commanders of vessels would discountenance the carrying of passengers during the quarantine season. But at present we agree on a detention of not less than ten days.

5. The proper disposal of non-infected vessels under quarantine.

The proper disposal of non infected and infected vessels under quarantine is complete separation and isolation of the latter at a station for infected vessels only.

6. Treatment of vessels and cargoes with a view to disinfection.

The treatment of vessels and cargoes with a view to disin-

fection is conscientious thoroughness in the application of scientific measures.

In the plan suggested there is no principle not contained in the present system. The only difference is that it contemplates thoroughness of execution and perfect consistency with its own doctrines.

7. The advisability of petitioning Congress to require consular agents of the United States, residing at inter-tropical ports habitually or periodically infected with yellow fever, to cause all ships in such ports that are about to load for ports in the United States, to be thoroughly inspected and cleansed before receiving cargo, and a certificate furnished to that effect.

The committee indorses the above suggestion.

All of which is respectfully submitted.

GEORGE A. KETCHUM, Alabama,
R. W. HARGIS, Florida,
A. PARKER CHAMPLIN, Mississippi,
C. A. RICE, Mississippi,
R. M. SWEARINGEN, Texas,
C. C. FITE, Tennessee,
JOSEPH HOLT, Louisiana,
Committee.

Dr. Cochrane moved that the report be received and adopted as the views of this Conference. Unanimously carried.

The following report was then made to the Conference by the committee appointed

ON INTERSTATE QUARANTINE:

Resolved, That there should be an entire harmony and coöperation between the health authorities of the several States.

Resolved, Every State shall appoint inspectors on all passenger trains from infected places, and on all steamboats or other river crafts on which it may be deemed advisable to have inspectors, to see that the quarantine rules are enforced in good faith.

Resolved, Every State should have the right to place inspectors of its own at points within the jurisdiction of any other State, and upon railroad trains and river boats within the limits of such jurisdiction. Inspectors coming under this head should be allowed all reasonable facilities for obtaining information and for the transmission of the same, and should comply with the quarantine regulations of the State or locality in which they are acting.

As to local or municipal quarantine; yellow fever or cholera having been introduced into any community, particularly into

any city or town, earnest efforts should be made to confine the disease within the smallest limits, that is to say, to prevent its dissemination through the community. To this end the infected house or locality should be vigorously isolated, and disinfection should be employed according to the most improved methods.

DR. JEROME COCHRANE, Alabama;
 DR. G. B. THORNTON, Tennessee;
 DR. W. E. ANDERSON, Florida;
 DR. R. M. SWEARINGEN, Texas;
 DR. J. M. TAYLOR, Mississippi;
 DR. L. F. SALOMON, Louisiana.

The report was unanimously adopted.

The following resolution was offered by Mr. Avery :

Resolved, That after fifteen days from the disappearance of a case of yellow fever, and no new cases having appeared, all quarantine against the place should be declared off.

Dr. Holt said it was imprudent to adopt any such definite rule. Dr. Thornton agreed with Dr. Holt and did not intend to be bound by any such definite rule. Mr. Avery then withdrew the resolution.

The following letter and resolutions having been read to the Conference, the resolutions were adopted. The resolutions were written by Col. W. M. Smallwood and presented by Dr. Olliphant, both of the Louisiana Board of Health.

NEW ORLEANS, May 29, 1884.

Joseph Holt, M. D., President Louisiana State Board of Health :

DEAR SIR—Inasmuch as I was the author of the resolution calling for a conference of delegates from the Boards of Health of the States of Florida, Alabama, Mississippi, Louisiana and Texas, I greatly regret that absence from the city will prevent me from attending its sittings. I hope the best possible results will flow from the conference, and that confidence and coöperation will be established between the health authorities of the States mentioned. The exclusion of contagious or infectious diseases from one is essential to the security of all the other States. The reasons that prevail in one State for zeal in excluding sickness exist with equal force in all the others. There is, therefore, every reason for mutual confidence and such coöperation as will lead to the establishment of an effective system of quarantine that shall be common to all.

The policy of health authorities in dealing with the seaboard should be to establish such systems of detention, fumigation

and cleansing of vessels as shall be scientific and effective, and at the same time offer as little hindrance as possible to commercial activities. In my judgment the theory of mere detention is a shallow conceit, and in itself is worthless. The views expressed by yourself on this point ought to be enforced upon the attention of the Conference, and I sincerely hope you will take occasion to do so. A vessel that has been cleansed and fumigated is either clean or it is not. If clean, further detention is worse than useless; it is oppression.

There should be no hesitation in doing whatever is necessary to preserve the health of the Gulf States, but Boards of Health ought not to take a step beyond that. That is all that is required by reason or public sentiment. It does not belong to us to make war on commerce, but rather that our Boards should become the protectors and the promoters of commercial communications. Your plan of such *thoroughness* in fumigating and cleansing a vessel at quarantine as that the official performing the service can say, after it is done, that the vessel *is clean*, will end all arguments for mere detention, and tend to promote commerce rather than to restrict it.

The plan of a lower quarantine at New Orleans, as you are aware, is one in which I take a profound interest. It is a scheme also strictly in the interest of commerce, and is only incipient to your own broad and scientific plans mentioned above. Until these measures are carried into execution there can be no abatement in the rigors of quarantine as applied to non-infected vessels.

But there remains another subject of inquiry by the Conference which looks equally to the exclusion of sickness and the promotion of commerce. There should be an appeal to Congress to enact such laws relating to consular agents of the government in foreign ports, as will require them to cause vessels in such ports and about to load for ports in the United States, to be thoroughly cleansed in advance of receiving cargoes. I am aware that there are great difficulties in the way of such legislation, but whatever power is lacking in Congress might be reached through treaties or conventions. Would it not be advisable to urge upon Congress the importance of negotiating special treaties or conventions with the States in the tropics, providing for a system of international sanitation. The best method of quarantine-sanitation should begin its work at the port of departure, and be completed at the port of entry, to include approved methods of ship sanitation, under competent authority pending the voyage of a vessel from one port to another. The hazards of importation of infectious diseases would certainly be immensely reduced if there could be a guaranty that all vessels loading in foreign countries for ports in the United States are thoroughly cleansed and rendered non-infected before being allowed to receive their cargoes. It will readily be perceived how such a system of international

sanitation, by preventing the shipments and exportation of disease, would insure safety and promote commerce.

Herewith I submit preamble and resolutions on this vastly important subject, with the request that you will bring them before the interstate health conference, which is to meet here next Monday.

As this is the short session of Congress, it will be important to use all possible expedition in this matter, should it receive the endorsement of the Conference, in order that action may be taken in time to secure immediately the benefits of the system of international sanitation proposed.

I respectfully submit the following preamble and resolutions, and request that the same, if they shall meet your views, be presented for the consideration of the Conference.

I am, dear sir, your obedient servant,

WALTER M. SMALLWOOD.

RESOLUTIONS ON INTERNATIONAL SANITATION.

WHEREAS, In view of the rapid and intimate intercourse which the expanding commerce of the United States has established with all foreign and especially tropical countries, has greatly enhanced the danger arising from the importation and dissemination of infectious diseases; and

WHEREAS, It would greatly aid the vigilant and efficient health authorities of the national and State governments if measures could be taken, with the approval and coöperation of the foreign powers having dominion over this continent, its islands, and its isthmus, as would effectually prevent the exportation and transportation of such infectious diseases from such ports and places as may be declared in quarantine by the executive authority of any State of this Union; and

WHEREAS, The constitutional authority of the national government in foreign countries, exercised through its ministers and consuls, as well as its undoubted jurisdiction over its own vessels, or others clearing for entry in its own ports, will with the coöperation of our domestic guardians of the public health, furnish a continuous watch over all sanitary intercourse from the point of apprehended infection to any locality within our own country; therefore,

Resolved, That our Representatives and Senators are hereby respectfully requested to introduce simultaneously into both Houses of Congress bills—

1. Extending the provisions of the act regulating the transportation of passengers and merchandise passed May 3, 1855, and the acts amendatory thereof, over all ports and places upon the continents and islands of America so far as the same may be necessary or applicable, and also over all vessels and other vehicles clearing from such ports or places for the United

States while in such foreign ports or places, or while in voyage or other transit between such ports or places of foreign departure and their destination in the United States.

2. Conferring the force and sanction of law upon all sanitary ordinances issued by the Department of State, under the act of June, 1879, and especially providing that all sanitary duties imposed by law upon consuls or commercial representatives of the United States, as well as upon shipmasters and owners or conductors of such vessels or other vehicles, shall be enforced by adequate and summary penalties, personal and pecuniary.

That the President of the United States shall be empowered and instructed to negotiate such conventions with the foreign powers herein before referred to, as will effectually prevent the exportation of infectious diseases from any port or place within their dominions so declared in quarantine, to any port or place in the United States; that the same may be incorporated as a means of international sanitation in the legislative codes of all civilized nations.

Resolved, That in consideration of the universal interest which the whole people of the United States have in the preservation of the public health against the importation of infectious diseases, an appeal is respectfully addressed to the members of both bodies of Congress, to permit the most prompt action upon the proposed measure of international sanitation, consistent with the deliberation due to a subject of such vital importance.

Resolved, That copies of the foregoing resolutions, properly attested by the president and secretary of this health conference, be forwarded to the Representatives and Senators in Congress from the several States bordering on the Gulf of Mexico, and other members of Congress who may be expected to take an interest in them.

Resolved, That a committee of three be appointed by the chair to enforce these resolutions by a proper memorial to Congress.

Adopted as part of the maritime committee's report.

The Secretary moved that the proceedings of this Conference be printed by the Louisiana Board of Health, and distributed to each State Board of Health interested in the question of sanitation and public health, and that each State Board of Health, or individual representative, be furnished with any number of copies they desire, and that expenses for the publication be defrayed by the State Boards of Health interested

in this movement, or the delegates representing each State in this Conference. Carried.

The following resolution was offered by Dr. Fite, and adopted :

Resolved, That the thanks of the Conference be returned to the Louisiana Board of Health for having called the meeting, and for courtesies shown the members. The meeting will prove of such great value that it will in the future be regarded as one of the most valuable ever held in this country.

At the suggestion of Dr. Holt, Dr. Fordham moved that the Conference adjourn to meet at Pensacola, the second Monday of May, 1885.

Adjournment.

